UNITED STATES PATENT AND TRADEMARK OFFICE

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BIRCH STEWART KOLASCH & BIRCH
P O BOX 747
FALLS CHURCH, VA 22040

EXAMINER
GENCO, BRIAN C

ART UNIT	PAPER NUMBER
2615	

DATE MAILED: 05/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Office Action Summary	Application No.	Applicant(s)
	09/209,751	MATAMA, TORU
	Examiner	Art Unit
	Brian C. Genco	2615

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>14 January 2005</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-15</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-15</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>14 January 2005</u> is/are: a)☐ accepted or b)☒ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some *   c)☐ None of:

         1.☐ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____.

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

Applicant's arguments filed January 14, 2005 have been fully considered but they are not persuasive.

Examiner thanks Applicant for adding text labels to the drawings.

Examiner thanks Applicant for their diligence in attempting to correct the drawings so as to overcome the drawing objections, however, in the changes made by Applicant new matter has been introduced.

The amendment filed January 14, 2005 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

The amendments to the specification starting with the amendment to the specification of page 16, line 4 from the bottom to page 17, line 14 described on page 5 of the amendment filed January 14, 2005 through the amendments to page 10 of the amendment are all new matter.

The last paragraph of page 12 is new matter corresponding to the branch of the flow diagram of newly added Fig. 3 leading to step S110 which is also new matter.

The addition of elements 78 and 56 to Fig. 2 are also new matter. Examiner notes on page 17, lines 4-8 of the specification as originally filed that when the red-eye processing is not performed it passes through the memory 56 to element 58. There is no disclosure of providing a bypass around the memory 56 as originally filed.

Examiner notes that as broadly as claimed, claim 2 can still be interpreted as it was in the previous office action since there is no limitation of providing a bypass around the memory when non-execution of red eye correction is selected as a mode.

Applicant is required to cancel the new matter in the reply to this Office Action.

Examiner notes that the drawing objections were drawn to the limitations of claims 2-7 and 9 not being shown. Examiner agrees with the assertion that the limitations of claims 6, 7, and 9 were previously illustrated through Fig. 2. Examiner thanks applicant for adding Fig. 3 so as to show the limitations of claims 3-5 and a portion of claim 2. Examiner also thanks applicant for their effort in modifying Fig. 2 so as to show the other portion of the limitations of claim 2.

Examiner notes that the limitations of claim 2-5 are supported in the specification as originally filed on page 26, line 11 – page 27, line 7 wherein it is described that a means for selecting either one of execution and non-execution of processing as a mode is where a user can verify an image to determine if red eye correction processing is needed or where no verification or red eye processing is performed. On page 30, lines 11-15 it is described that either one of execution and non-execution of processing is selected as a mode. Finally on page 31, line 13 – page 32, line 11 it is described that either one of execution and non-execution of processing is determined automatically from photographing information.

As such, in order to overcome the drawing objections Examiner suggests modifying Fig. 3 as illustrated below corresponding to the disclosure of the specification as originally filed:

```
                          ┌─────────┐
                          │  Start  │
                          └────┬────┘
                               │
                               ▼
                         ╱Red-eye╲         No
                        ╱Correction╲─────────────────────────────────────┐
                        ╲  Mode?   ╱                                      │
                         ╲       ╱                                        │
                            │Yes                                          │
                            ▼                                             │
                          ╱ Is ╲            No                            │
                         ╱Flash ╲───────────────────────────────┐        │
                         ╲Used? ╱                                │        │
                          ╲   ╱                                  │        │
                            │Yes                                 │        │
                            ▼                                    │        │
                          ╱ Does ╲                               │        │
                        ╱At least one╲                          │        │
                      ╱  Of BV value,  ╲                        │        │
                    ╱Photographing distance,╲     No            │        │
                  ╱ Position of main elements in╲───────────────┤        │
                  ╲ Picture focal length of lens,╱              │        │
                    ╲ And type of camera       ╱                │        │
                      ╲  Satisfy specified    ╱                 │        │
                        ╲   Conditions?     ╱                   │        │
                            │Yes                                 │        │
                            ▼                                    │        │
                        ╱Verify ╲    Yes      ╱  Is  ╲    No     │        │
                       ╱ Image? ╲──────────▶╱Correction╲────────┤        │
                       ╲        ╱           ╲Necessary?╱         │        │
                        ╲      ╱             ╲        ╱          │        │
                           │No                  │Yes            │        │
                           │◄───────────────────┘               │        │
                           ▼                                     ▼        ▼
                  ┌──────────────────┐              ┌──────────────────────┐
                  │    Red-eye       │              │       Red-eye        │
                  │   Correction     │              │     Correction       │
                  │   Processing     │              │     Processing       │
                  │  Is Performed    │              │   Is Not Performed   │
                  └──────────────────┘              └──────────────────────┘
```
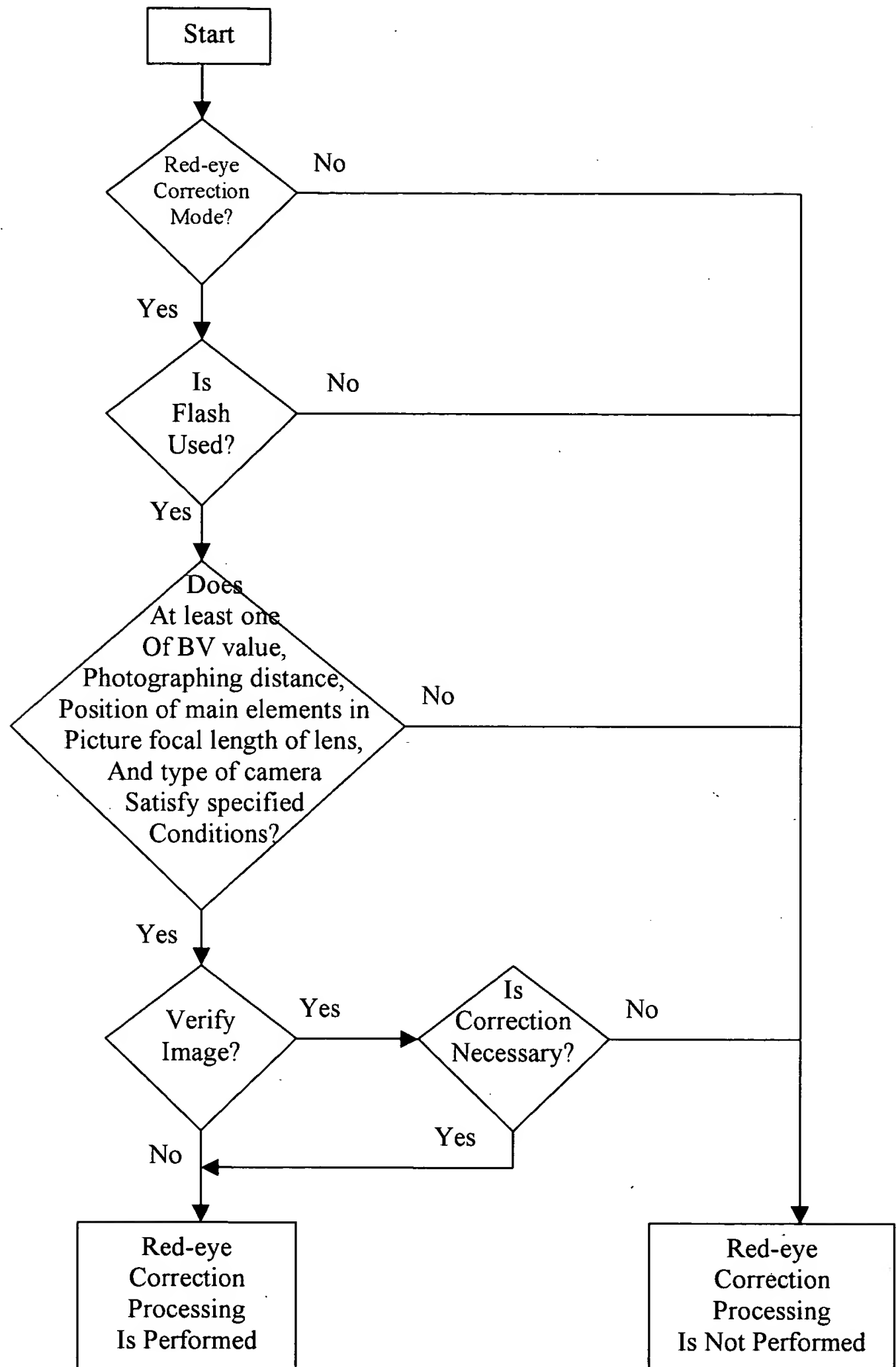
Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitations of claim 2 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Applicant argues that the combination of Stokes and Leone fails to disclose designation means for designating a region to be corrected including an eye within the low resolution image.

Examiner respectfully disagrees. Stokes discloses performing a low resolution scan of an image and designating a region of interest within a low resolution image to be further inspected on a high resolution image by performing a high resolution scan of the image. Leone discloses performing a high resolution scan of an image and subsampling that image to display a low resolution image, designating a region of interest on the low resolution image for subsequent display of a high resolution image to determine if there are image artifacts such as red-eye, and correcting the high resolution image if needed. As such, in combining the combined teaching of Stokes in view of Leone discloses to perform a low resolution scan of an image and designating a region of interest within a low resolution image to be further inspected for image artifacts such as red-eye on a high resolution image by performing a high resolution scan of the image, and correcting the high resolution image if needed.

Applicant's argue that Leone's method of panning and zooming in on an area of interest are very cumbersome and time consuming contrary to the present invention's ability to quickly designate a an area of interest in the low resolution image.

In response, Examiner notes that the designating means of Leone was not used in the rejection previously presented. Rather, the designating means of Stokes illustrated in Fig. 3 was relied on which is equivalent to the designating means of the instant invention.

Applicant argues that the correspondence between the low and high resolution images is completely absent from both Stokes and Leone.

Examiner notes that it is clear from the disclosure of Stokes that the region in the high resolution image corresponds to the region designated in the low resolution image as clearly shown in Figs. 1-8, and in particular Figs. 3 and 5.

Applicant argues that Stokes suggestion of applying standard editing programs and highly manual pan/zoom process are completely insufficient to disclose or suggest the combination of designation means and red-eye correction means.

In response, Examiner notes that Stokes does not disclose a "highly manual pan/zoom process". Rather, Stokes discloses a designating means illustrated in Fig. 3 equivalent to that disclosed by Applicant. Further, Examiner asserts that Stokes suggestion to utilize image processing is a suggestion to utilize known image processing algorithms such as red-eye correction. Examiner notes that in the last paragraph of page 4 Applicant admits that red-eye correction is known. Leone discloses that red-eye correction is known also.

Applicant argues that there is no suggestion in Leone to designate a region in a low resolution image followed by a red-eye correction in the image data of high resolution.

In response, Examiner notes that is precisely what Leone teaches. Leone discloses to scan an image at high resolution and subsample that image so as to display the entire image. This subsampled image is a low resolution image. Leone then discloses to zoom in on a particular region of interest, such as an eye, to correct for image artifacts, such as the red-eye condition. This zoomed in image is a high resolution image since Leone disclose to fit the image to the display as described on column 5, lines 6-30.

Applicant argues that a combination of Stokes and Leone would result in the invention of Leone wherein the high resolution scan may be terminated before it is completed.

In response, Examiner notes that this would destroy the teachings of the Stokes reference. In particular, Stokes discloses to generate a preview by performing a low resolution scan. This preview is equivalent to the subsampled source image of Leone. Within the low resolution preview of Stokes a user would designate an area of interest, wherein a high resolution scan commences and the area designated is displayed at high resolution to determine if the quality of the image is acceptable. This is equivalent to a user zooming and panning in on an eye in the Leone to determine if there is red-eye. Then based on the teaching of Leone, image processing such as red-eye correction, would be performed on any image artifacts in this high resolution display in order to correct the image.

Examiner notes Applicant's counter rebuttal to the arguments presented in the previous Office Action.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1 and 6-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over (USPN 6,295,388 B1 to Stokes et al) in view of (USPN 5,596,346 in view of Leone et al).

In regards to claim 1 Stokes et al., herein Stokes, discloses an image processing apparatus for subjecting input image data of an image obtained by optical photographing to preset processing and making the input image data to output image data, comprising:

storage means for storing the image data at high resolution that is finely scanned and the image data at low resolution that is pre-scanned (e.g., column 3, lines 29-31 and lines 42-44 wherein the image data is read out from the storage so as to be displayed. Examiner notes that Stokes does not explicitly disclose that the low resolution scan is stored, however, it is displayed and thus inherently the frame of image data must be stored somewhere in as much as a display buffer or in a cache to be able to be displayed);

a display for displaying the image carried by the image data at high resolution or low resolution that is read from the storage means (e.g., see Figs. 2-6 and the notes above);

display switching means of switching at least one portion or all portions of the image displayed on said display from the low resolution to the high resolution and vice versa (e.g., the display switching means is set by selecting an area 44 of the image to be displayed at high resolution wherein the high resolution scan can be stopped if the high resolution image is unacceptable. Examiner notes that Stokes does not explicitly disclose nor preclude that a user can switch from the high resolution display to the low resolution display, however, Stokes does

disclose that the high resolution scan is output to a different window. Examiner notes that it is

extremely well known in the art at the time of the invention to allow a user to switch between

windows in order to selectively see a desired window out of multiple windows. Official notice is

taken. Therefore it would have been obvious at the time of the invention to have enabled the ·

user of Stokes' invention to have selected which window is displayed in order to selectively see a

desired window out of multiple windows; column 3, lines 26-28, 42-44, and 53-58; column 4,

lines 3-5; Figs. 1-6);

designation means for designating a region in the image at low resolution that is

displayed on said display by said display switching means (e.g., the designation means is

inherent in selecting a detail area within the preview scan; column 3, lines 55-57).

Stokes does not disclose that the designation means necessarily designate a region

including an eye or the red eye correction means. Stokes does disclose to modify various

characteristics of the image if necessary on column 3, lines 11-19.

Leone et al., herein Leone, discloses zooming in on a region including an eye for

detecting red-eye as depicted in Figs. 1A-2D (e.g., column 3, lines 41-47). Upon detecting a red-

eye condition Leone discloses the ability to correct the red-eye condition is desired by the user

(e.g., column 4, lines 24-37). Leone further disclose the ability to print the image wherein upon

pressing a print button a preview image of the entire image after all of the corrections is

displayed (e.g., column 7, lines 18-20). Examiner notes that both Stokes and Leone are

interested in "zooming" in to a desired location in order to enable a user to determine if the

image is acceptable. While Stokes teaches that upon reviewing an unacceptable image, the high

resolution scan can be canceled or various characteristics may be modified if necessary, Leone

goes on to disclose various functions for correcting the high resolution image and further to

provide a printing option in order to enable the user to generate a printed copy of the image.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the

invention to have added the correction functions to Stokes' invention in order to enable a user to

correct undesirable features in an image. As such, the region designated by the designation

means is displayed at high resolution before the correction processing. It further would have

been obvious to one of ordinary skill in the art at the time of the invention to have added the print

feature of Leone's invention to that of Stokes in order to allow a user to generate a corrected

print of an image. As such, the display switching means is more fully defined in that by

designating a button the image is switched so as to display a corrected preview of the entire

image such that the image is displayed as "what you see is what you get" as disclosed by Leone.

In regards to claim 6 Stokes in view of Leone discloses the image processing apparatus

according to claim 1, wherein said red eye correction means comprises:

image data taking-out means for taking out the image data in said region including the

eye in the high-resolution image that corresponds to the region designated by said designation

means (e.g., Leone: column 4, lines 32-35 and 43-54; column 7, lines 3-9; wherein the region

displayed in window 22 is taken out such that that region alone is processed);

color transforming means for subjecting the image data of said eye in the region taken out

by said image data taking-out means to the eye color transformation processing (e.g., Leone:

column 4, lines 30-32; column 7, lines 3-6); and

image data replacing means for replacing said output image data in the region to be taken

out by said image data taking-out means with the image data of the eye in the region which is

substituted to the eye color transformation processing by said color transforming means (e.g., the source image is modified by the processed portion, i.e., the portion of the source image seen in window 22 is processed and changed on the source image; column 4, lines 32-35; column 7, lines 10-13).

In regards to claim 7 see examiners notes on the rejection of claim 1. Note the disclosed process of zooming-in on the eye takes place before red-eye correction.

In regards to claim 8 note Figs. 1 and 2 of Stokes' disclosure (column 2, line 62 – column 3, line 14. Also, Leone discloses, "The photographer will sometimes misplace the negatives and only retain the original print. In this situation the original print must be photographed or otherwise captured. This capturing can be done chemically or digitally (column 1, lines 26-30, Leone)," or "input image data of the image obtained by the optical photographing are image data which are read photoelectrically from an image on a photographic film that is photographed and then developed."

In regards to claim 9 see Examiners notes on the rejection of claim 1.

In regards to claim 10 see examiners notes on the rejection of claims 1 and 8. Note that Leone discloses, "the original print must be photographed or otherwise captured (column 1, lines 28-29, Leone)," wherein "image data obtained directly by photographing a subject" falls under the category of being "otherwise captured." Also note that it is well know in the art and obvious to one skilled in the art to interchange taking photographic pictures using both photographic film and digital imaging devices such as CCD's. Further note that the scanning devices disclosed by both Stokes and Leone do directly photograph a subject, namely the film.

In regards to claim 11 see Examiner's notes on the rejection of claim 6. Examiner notes that the image data taking-out means takes out a region of a prescribed shape and size in the image data of high resolution corresponding to the region designated in the low resolution as disclosed by both Stokes and Leone (e.g., Stokes: Figs. 3 and 5; Leone: Figs. 2B, wherein the region indicated in the low resolution image is shown in element 34 and the window 22 takes out a region of a prescribed shape and size in the image data of high resolution corresponding to the region 34).

In regards to claims 12-15 see Examiner's notes on the rejections presented above.

Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over (USPN 6,295,388 B1 to Stokes et al) in view of (USPN 5,596,346 in view of Leone et al) in further view of (USPN 5,420,699 to Yamanouchi et al).

In regards to claim 2 see examiners notes on the rejection of claim 1. Note Leone's disclosure, wherein, "As depicted in FIG. 1D on of the eyes of the subject 24 is now positioned in the center of the window 22 and the view port 32 is also centered on the eye as well as being of a size where only the area around the eye is defined as being within the view port 34. The user can now determine if the "red-eye" condition exists in the eye shown in the window 22. If the condition exists the user can activate a conventional process for correcting the artifact condition by touching the apply button 18. This will result in the portion of the source image 32 seen by the user in the window 22 (as defined by the view port 34) being processed (column 4, lines 23-31, Leone)," or "means for selecting either one of execution or non-execution of processing by said display switching means, said designation means and said red eye correction

means as a mode," whereby if the disclosed user doesn't detect the red-eye condition then non-execution of processing will be preformed. Leone does not disclose "means for automatically determining said either one of the execution and the non-execution of the processing from photographing information and means for selecting and indicating said either one of the execution and the non-execution of the processing."

Yamanouchi et al, herein Yamanouchi, discloses "a transparent magnetic recording layer is coated on the side opposite to a light sensitive surface of a film base of the film (column 3, lines 36-38, Yamanouchi)" depicted in Fig. 1 element B, as well as "image pattern B includes information of conditions necessary for printing process such as weather in the course of photographing, time of photographing and whether a strobe was used or not (column 3, lines 46-50, Yamanouchi)," and finally that "optical information sensor S1 reads the aforementioned image pattern B first, the data thereof are sent to an optical information analyzing unit, and for example, filter f1 is selected so that color correction corresponding to the aforesaid photographing conditions may be made (column 4, lines 46-50, Yamanouchi)," wherein the disclosed optical information analyzing unit automatically determines processing functions, such as color correction or red-eye correction based on the information recorded on image pattern B. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have "at least one of means for selecting either one of execution and non-execution of processing by" either user input commands as disclosed by Leone or by automatic determination means based on pre-recorded information about the photographing conditions as disclosed by Yamanouchi.

In regards to claim 3 see examiners notes on the rejection of claim 2. Yamanouchi discloses "image pattern B includes information of conditions necessary for printing process such as weather in the course of photographing, ...and whether or not a strobe was used (column 3, lines 45-49, Yamanouchi)," wherein all of the claim limitations listed in claim 3 are necessary for determining the possibility of red-eye occurring in a picture and are therefore necessary for printing process. It would have been obvious to one of ordinary skill in the art at the time of the invention to record information about the photographing conditions as disclosed in Yamanouchi in order to allow more information to the user "for the purpose of efficient printing (column 1, line 57, Yamanouchi)."

In regards to claim 4 Yamanouchi discloses recording information such as whether a strobe was used or not as noted above wherein it is very well known and established in the art that if a strobe or flash was not used then there is no possibility of having red-eye defects in a picture and as noted above in the rejection of claim 2 the determination means would note that there is not possibility for red-eye to have occurred in the picture and therefore would not do red-eye processing on the picture or "means for determining the non-execution of the processing."

In regards to claim 5 see examiners notes on the rejection of claims 3 and 4.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian C. Genco who can be reached by phone at 571-272-7364 or by fax at 571-273-7364. The examiner can normally be reached on Monday thru Friday 8:30am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Groody can be reached at 571-272-7950. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone number is 571-272-2600.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

<div style="text-align: right;">
Brian C Genco
Examiner
Art Unit 2615
</div>

May 4, 2005

James J. Groody
Supervisory Patent Examiner
Art Unit 262 2615